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EXAMINER

AHMED, SAMIR ANWAR

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,101

Applicant(s)

ARNOUSE, MICHAEL

Examiner

Samir A. Ahmed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's amendment filed on 2/17/05 has been entered and made of record.
 2. In response to Applicant's amendment filed on 2/17/05 the objection to the amendment filed 6/24/04 under 35 U.S.C. 132 is withdrawn.
 3. In response to Applicant's amendment filed on 2/17/05 the rejection of claims 26,39,52 under 35 U.S.C. 112, first paragraph is withdrawn.
 4. In response to Applicant's amendment filed on 2/17/05 the rejection of claims 13 and 16 under 35 U.S.C. 112, second paragraph is withdrawn.
 5. The subject matter disclosed in amended claims is denied priority to provisional 60/482807 and have the filing date of this application (8/18/03) because it is not recited anywhere in the provisional application. For example "comparing of the user characteristic against biometric information of all authorized users stored in the one computer" recited in the amended claims, is not found anywhere in the provisional. There is no recitation of a comparison step in the provisional against any stored data.
1. Applicant's arguments filed 2/17/05 have been fully considered but they are not persuasive with regard to claims 1-7, 8-9, 12-18, 20-22, 27-31, 33-35, 40-41, 44-48, 53, 58 for the following reasons:

Applicant alleges that "the provisional application [,]" (page 19, line 21-page 20, line 4). The Examiner disagrees. Firstly, the Examiner cannot find the language "Further, a fingerprint reader and/or retina reader associated with the controller (e.g. rudder) of the aircraft detects whether an authorized person is flying the aircraft by utilizing the stored user characteristics", anywhere in (Paragraph 0009). Secondly, The Examiner cannot find anywhere in the provisional "any comparison step of comparing

the information of the user to operate the controller against the stored information as to all authorized users. Therefore, the subject matter of the amended claims is not disclosed in the provisional application and the denial of priority to the filing date of the provisional application is maintained.

As to claim 1, Applicant alleges, " Claim 1 as amended is different [']" (page 22, line 3-page23, line4). The Examiner disagrees. Firstly, Seah clearly discloses an identification and authentication device 52, such as a fingerprint or retina scanner in communication with the on-board computer 36 (monitoring device) to deny entry to the cockpit of the plane to any person not authorized to be in the cockpit as determined by the identification and authentication device 52 (col. 2, [0045]). This means that the computer is denying access to the cockpit to any person unless it is determined that the person is authorized to be in the cockpit as determined by the identification and authentication device 52, and this only achievable by checking the biometrics of the person against authorized person stored (col. 3, [0050]). It is clear from Fig.10 that shows the cockpit of the plane that the plane has at least two authorized users, the captain and the first officer that have to be checked by the identification and authentication device 52 at the cockpit's door, and their biometrics have to be checked before they are granted entry and if their biometrics do not exist in the system, they would not be granted entry. Also the biometrics subsystem is integrated into the autopilot subsystem and other parts of the airplane to determine whether a person to gain access to these parts of the plane is authorized (col. 3, [0050]). Secondly, the cited paragraphs [0051,0052] are irrelevant to the security system 22 that uses biometric

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devices integrated into cockpit door, the autopilot subsystem and other parts of the airplane to determine whether a person to gain access to these parts of the plane is authorized (col. 3, [0050]) and these paragraphs describes the surveillance and sensor subsystem 24 which detects potential threats to the aircraft and implant countermeasures. Thirdly, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the claimed invention will lock out an unauthorized user from the various controls at any time prior to takeoff and/or during a flight, and in one identification verification step, are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As to claim 8, Applicant alleges, " Claim 8 as well independent claims 14, 27 and 40 as currently amended ["] (page 22, line 3-page23, line4). The Examiner disagrees. Firstly, Riley discloses issuing individual smart cards for all authorized flight personnel that stores fingerprints of authorized users (i.e., storing all information of authorized persons on individual storage memories) (col.4, [0046]. Secondly, secondly, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., only one security device scan is required for reading information pertaining to a user to lock out or enable aircraft controls, are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As to claim 6-7, Applicant alleges that "As mentioned above with respect to Riley ['I]" (page 26, line 10-page 26, line 20). The Examiner disagrees. Firstly, Riley is not used in rejecting these claims. Secondly, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., only one biometric security device scan for information associated with an authorized user of an aircraft is required, are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thirdly, Gehlot does not require an external, non-biometric means of identification upon entering a vehicle simply because the removable information cards store collected vehicle data (see col. 3, lines 26-28) and not biometric data of the user. The biometric data of the user is stored in storage unit 7 (col. 18-24). The system prompts the driver to enter the biometric data and compares it to biometric data stored in storage unit 7 to identify the user (col. 6, lines 16-26). Therefore the biometric data is collected from the user and is compared to biometric data stored in storage unit 7, and Gehlot does not teach away from the present application. Fourthly, Gehlot is only used to teach that it is well known in the art to store biometric data in a computer memory and compare newly entered biometric data to previously stored biometric data to determine if access to a vehicle is authorized.

As to claim 10-11,19,32,42, Applicant alleges, "Osten discloses a biometric ["]" (page 27, line 2-13). The arguments are irrelevant to the claims because there is nothing in the claims that addresses authentication lag time.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 62, 64-66 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 62 recites, "identifying an authorized user where there is either no pulse detected, an irregular pulse or a rapid pulse", lines 4-5. There is no recitation in the specification as originally filed of ""identifying an unauthorized user where there is either no pulse detected, an irregular pulse or a rapid pulse" or how to perform it. The specification as originally filed discloses that the pulse sensor detects whether or not there is the presence of a pulse to signify that the hand placed on the rudder is of a live individual or if there is a rapid or irregular pulse, such as to signify the individual is in a distressed state (page 7, lines 20-24). The specification does not show how an unauthorized user is identified wherein where there is either no pulse detected, an irregular pulse or a rapid pulse. The rapid or irregular pulse is to determine whether or

not the individual is in a distressed state and has nothing to do with identifying an unauthorized user

Claim 64, recites, "wherein the designated permissions include an authorization level assigned to the user", line 1-2. Claim 65, recites, "wherein the authorization level ranges between limited authority and full authority, and is based at least in part on a task that is pre-assigned to a user", lines 1-3. Claim 66, recites, "wherein the task pre-assigned to a user corresponds to a category of personnel, with the category of personnel being selected from the group consisting of a pilot, co-pilot, flight attendant, ground crew or maintenance personnel, wherein different types of permissions and authorization levels are provided depending on the category of personnel", lines 1-5. There is no recitation in the specification as originally filed of either "wherein the designated permissions include an authorization level assigned to the user", or "wherein the authorization level ranges between limited authority and full authority, and is based at least in part on a task that is pre-assigned to a user" or "category of personnel includes flight attendant" or "wherein different types of permissions and authorization levels are provided depending on the category of personnel", or how to perform it. The specification as originally filed discloses that the monitoring system grant designated personnel permission to operate the aircraft for specific tasks; for example granting only the designated pilot and copilot of a certain flight the ability to fly the aircraft (See Page 5, lines 18-24). Nowhere the specification as originally filed recites authorization level assigned to the user that ranges between limited and full authority based on the task or

different types of permissions and authorization levels are provided depending on the category of personnel.

Drawings

8. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “identifying an authorized user where there is either no pulse detected, an irregular pulse or a rapid pulse; wherein the designated permissions include an authorization level assigned to the user; wherein the authorization level ranges between limited authority and full authority, and is based at least in part on a task that is pre-assigned to a user; and wherein the task pre-assigned to a user corresponds to a category of personal, with the category of personnel being selected from the group consisting of a pilot, co-pilot, flight attendant, ground crew or maintenance personnel, wherein different types of permissions and authorization levels are provided depending on the category of personnel” (see paragraph 7) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 59 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claim 59 recites the limitation "the at least one biometric device" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-7, 59-60, 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Seah et al. (U.S. Patent Application Publication 2003/0071743) and Gehlot (U.S. Patent 6,167,333).

As to claim, Seah discloses a security mechanism for identifying authorized users comprising:

a controller operable by a user (cockpit double door module or autopilot subsystem or communication systems (controller) used by user (i.e. operable by a user) (Col. 3, [0050]);

a security device to read information associated with the user the user attempting to operate the controller [fingerprint device, retina scanner (a security device) to read the biometric information of the user trying to gain access to the controller (col. 3, [0050]; and

one or more monitoring devices to determine whether the user is authorized to operate the controller [on-board computer system (monitoring device) (Fig. 2, item 36) to determine whether the user is authorized to gain access or not (col. 3, [0050].

Fig.10 of Seah shows the cockpit of a plane that has at least two authorized users, the captain and the first officer that have to be checked by the identification and authentication device 52 at the cockpit's door (controller), and their biometrics have to be checked before they are granted entry and if their biometrics do not exist in the system, they would not be granted entry (i.e., the system should store the biometrics of all persons that are authorized to be in the cockpit in order to use these biometrics to check any person trying to gain entry to the cockpit and determine whether or not the

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user is authorized to be in the cockpit . Also the biometrics subsystem is integrated into the autopilot subsystem and other parts of the airplane to determine whether a person to gain access to these parts of the plane is authorized (col. 3, [0050]).

Seah does not disclose the details of the storage and comparison process. Seah does not specifically, disclose that the information as to all users authorized to operate the controller is stored in one or more monitoring devices (computers) and comparing the information of the user attempting to operate the controller against the stored information as to all authorized users. However identifying a user by comparing a characteristic of the user (fingerprint or retina scan) against all biometric information of authorized users stored in the computer is conventional and well known in the art as disclosed by Gehlot. Gehlot discloses a system for preventing an unauthorized access to a vehicle, plane (airplane) and the like (col. 3, lines 38-51). The system comprises a vehicle data processor (VDP) that compares received physical data of the user such as fingerprint or retina scan with previously stored physical data of all authorized users to determine whether the user is authorized to drive the vehicle (col. 2, lines 9-11, col. 3, lines 18-32, col. 5, line 63-col. 6, line 6, col. 6, lines 18-26, and lines 50-55). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of Gehlot to modify Seah's mechanism, by storing in a computer (monitoring device) the physical data (biometric information) of all the authorized users and comparing new received physical data of the user such as fingerprint or retina scan with the previously stored physical data to determine whether

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the user is authorized and deter unauthorized use of a vehicle and prevent theft or hijacking of the vehicle.

As to claims 2-4, refer to claim 2-4 rejections, grounds for rejections stated in paragraph 8 of the Office Action mailed on 9/22/04, are incorporated by reference herein.

As to claim 5, refer to claim 5 rejection, grounds for rejections stated in paragraph 8 of the Office Action mailed on 9/22/04, are incorporated by reference herein. Furthermore the autopilot module is a control manually operable by a pilot to fly an aircraft.

As to claims 6-7, refer to claim 6-7 rejections, grounds for rejections stated in paragraph 11 of the Office Action mailed on 9/22/04, are incorporated by reference herein.

As to claim 59, refer to claim 3 rejection, grounds for rejections stated in paragraph 8 of the Office Action mailed on 9/22/04, are incorporated by reference herein. Furthermore the autopilot module is operable by a pilot's hand and the pilot's fingers contact the fingerprint device integrated into the autopilot.

As to claim 60, Seah further discloses wherein the at least one computer is located on the aircraft or a location outside of the aircraft [Fig. 2, computer system 36 is on board].

As to claim 68, Geholt further discloses, wherein the stored information for all authorized users is stored prior to flight [the biometric data is stored in the memory 7 of the processor 3 before starting the vehicle and newly entered biometric data from the

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user is compared against the data stored in memory 7 before granting access (col. 3, lines 18-32). Memory 7 includes a list of all authorized users for the vehicle (col. 6, lines 51-55).

As to claim 69, both Seah [biometric devices are integrated into the cockpit double door module and autopilot subsystem to determine whether a person trying to gain access to these systems is authorized (col. 3, [0050]), and denying access to unauthorized persons (col. 2, [0045]) and Geholt (col. 3, lines 29-32) further discloses, wherein a user is restricted from operating the controller until being identified as an authorized user.

14. Claims 8-9, 12-18, 20-22, 27-31, 33-35, 40-41, 44-48, 53, 58, 61, 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Riley (U.S. Patent Application Publication 2003/0067379) and Gehlot (U.S. Patent 6,167,333).

As to claim 8, Riley discloses a security system for restricting operation of an aircraft comprising:

one or more biometric devices for reading biometric information of a person attempting to operate the aircraft [scanning means such as fingerprint scanning device7, or devices, mounted on the primary aircraft controls or any other suitable location on the cockpit (3, [0038]);

one or more monitoring systems in communication with the one or more biometric devices, the one or more monitoring systems receiving the biometric information read by the one or more biometric devices, the one or more monitoring systems further comparing the biometric information read by the one or more biometric

devices against the stored biometric information [microprocessor module 2 (monitoring system in communication with biometric devices) receives the fingerprint image from the fingerprint scanning device 7 (col. 3, [0038]), the microprocessor control module 2 compares the user's fingerprint received from the biometric scanner 7 with stored fingerprint template to authenticate the user (col. 4, [0042]); and

one or more control mechanisms in communication with the one or more monitoring systems to regulate operation of the aircraft based on whether or not an authorized person has been identified [a communication module 3 (control mechanism) is connected to (in communication with) the microprocessor module 2 and connected to transponder or autopilot (control mechanisms) [col. 5, (0048)], the operation of such control mechanisms is regulated based on the verification result [col. 2, [0023], col. 5, [0050]].

Riley discloses issuing individual smart cards for all authorized flight personnel that stores fingerprints of authorized users and use the smart cards for comparison (i.e., storing all information of authorized persons on individual storage memories) (col.4, [0046]). Riley does not specifically, disclose that the information as to all users authorized to operate the controller is stored in the one or more monitoring devices (in the computers) and comparing the biometric information read by the one or more biometric devices against the stored biometric information concerning all authorized users to operate the aircraft. However identifying a user by comparing a characteristic of the user (fingerprint or retina scan) against biometric information of all of authorized users stored in a computer is conventional and well known in the art as disclosed by

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Gehlot. Gehlot discloses a system for preventing an unauthorized access to a vehicle, plane (airplane) and the like (col. 3, lines 38-51). The system comprises a vehicle data processor (VDP) that compares received physical data of the user such as fingerprint or retina scan with previously stored physical data of all authorized users to determine whether the user is authorized to drive the vehicle (col. 2, lines 9-11, col. 3, lines 18-32, col. 5, line 63-col. 6, line 6, col. 6, lines 18-26, and lines 50-55). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of Gehlot to modify Riley's mechanism, by storing in a computer (monitoring device) the physical data (biometric information) of all the authorized users and comparing new received physical data of the user such as fingerprint or retina scan with the previously stored physical data to determine whether the user is authorized and deter unauthorized use of a vehicle and prevent theft or hijacking of the vehicle.

As to claims 9, 12-18, 20-22, 27-31, 33-35, 40-41, 44-48, 53, 58, refer to claim 9, 12-18, 20-22, 27-31, 33-35, 40-41, 44-48, 53, 58 rejections, grounds for rejections stated in paragraph 9 of the Office Action mailed on 9/22/04, are incorporated by reference herein.

As to claim 61, Riley further discloses wherein the at least one computer is located on the aircraft or a location outside of the aircraft [Fig. 1, microprocessor module 2 is on board].

As to claim 70 refer to claim 53 rejection.

15. Claims 10-11, 19, 32 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Riley (U.S. Patent Application Publication

2003/0067379) and Gehlot (U.S. Patent 6,167,333) as applied to claims 8, 14 and 27 above, and further in view of Osten et al. (U.S. Patent 5,719,950). The grounds for rejections stated in paragraph 12 of the Office Action mailed on 9/22/04, are incorporated by reference herein.

16. Claims 23, 25-26, 36, 38-39, 49, 51-52, 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Riley (U.S. Patent Application Publication 2003/0067379) and Gehlot (U.S. Patent 6,167,333) as applied to claims 14, 27 and 40 above, and further in view of Seah et al. (U.S. Patent Application Publication 2003/0071743). The grounds for rejections stated in paragraph 13 of the Office Action mailed on 9/22/04, are incorporated by reference herein.

1. Claims 24, 37 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Riley (U.S. Patent Application Publication 2003/0067379) and Gehlot (U.S. Patent 6,167,333) as applied to claims 14, 27 and 40 above, and further in view of the combination of Osten et al. (U.S. Patent 5,719,950) and Ott (U.S. Patent 5,719,950). The grounds for rejections stated in paragraph 14 of the Office Action mailed on 9/22/04, are incorporated by reference herein

17. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Seah et al. (U.S. Patent Application Publication 2003/0071743) and Gehlot (U.S. Patent 6,167,333) as applied to claim 1 above and further in view of Osten et al. (U.S. Patent 5,719,950).

As to claim 62, neither Seah nor Gehlot discloses further comprises:

Monitoring a user's pulse; and

identifying an unauthorized user where there is either no pulse detected, an irregular pulse or a rapid pulse.

However, monitoring the user's pulse using a pulse reader with the fingerprint scanner (biometric device) to detect a live finger of an authorized user in the context of access control is conventional and well known in the art as disclosed by Osten.

Osten discloses a biometric system to assure that an individual seeking biometric authentication, recognition or access is actually present for authentication. For example, in a fingerprint scanner whether the finger is attached to a living human being or an electronic or photographic reconstruction of the fingerprint or dismemberment of the finger is used (col. 1, line 56-col. 2, line 10). One or more non-specific biometric parameters (e.g., bone structure, EKG signals, pulse, and spectral characteristics of human tissue (col. 2, line 66-col. 3, line 13) used in combination with one or more unique, inherently specific biometric parameters (e.g., fingerprints, handwriting and retinal configuration) (col. 2, lines 54-65) provides extremely high precision protection against circumvention, and does not require time consuming and inordinate measurement for authentication for purposes such as access control to a secure function or fitness to perform a function (col. 3, lines 14-20). Inherently specific and non-specific biometric parameters can be concurrently and non-invasively gathered for recognition, comparison, and authentication (col. 4, lines 43-46). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of Osten to modify the combined security system of Seah and Geholt by using a pulse reader in the fingerprint scanner to achieve a live finger detection

capabilities to conclude when there is not pulse that the finger is not a live finger and the user is unauthorized user and concurrently gathering inherently specific (fingerprint, and retinal configuration) and non-specific (EKG signals, pulse, and spectral characteristics of human tissue) biometric parameters (as disclosed by Osten) in order to add a further measure of security and to provide extremely high precision protection against circumvention, that does not require time consuming and inordinate measurement for authentication for purposes such as access control to a secure function or fitness to perform a function.

18. Claim 63-67 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Seah et al. (U.S. Patent Application Publication 2003/0071743) and Gehlot (U.S. Patent 6,167,333) as applied to claim 1 above and further in view of Anthony et al. (U.S. Patent 6,559,769).

As to claims 63-66 [As best understood by the Examiner in light of the disclosure], neither Seah nor Gehlot discloses wherein the stored information includes designated permissions assigned to the user.

Anthony discloses an airplane security system that monitors the airplane security as being maintained or serviced by using biometric information of personnel performing specific tasks such as cleaning, food services etc (col. 19, lines 7-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of Anthony to modify the combined security system of Seah and Gehlot by includes designated permissions assigned to the user in order to sustain airplane security while the plane is as being maintained or serviced.

As to claim 67, Seah further discloses, wherein permission to fly an aircraft is provided to only specific pilots and co-pilots that have been assigned to a particular flight [the pilot and first officer (copilot) in the airplane 12 in Fig 1 are specific pilots and copilots assigned to fly the airplane on that particular flight].

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

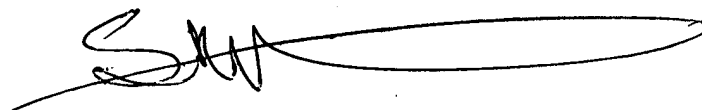
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samir A. Ahmed whose telephone number is (571) 272-7413. The examiner can normally be reached on Mon-Fri 8:30am-6:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (571) 272-7414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SA

A handwritten signature in black ink, appearing to read 'SAH', followed by a long, horizontal, oval-shaped flourish.

**SAMIR AHMED
PRIMARY EXAMINER**